WHAT IS CLAIMED IS:

1. A method of growing a nitride layer on a substrate, comprising the steps of:

exposing a nitrogen-bearing molecule to an emission of light, thereby disassociating a nitrogen ion; and

placing the nitrogen ion in close proximity to a receptor ion, such that the receptor ion and the nitrogen ion combine to form a nitride.

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2. The method of claim 1, wherein the nitrogen-bearing molecule is ammonia.

3. The method of claim 1, wherein the receptor ion is selected from the group consisting essentially of:

aluminum;

gallium; and

indium.

4. The method of claim 1, where the receptor ion is an alloy of a Group III element.

5. A method of creating a layer on a substrate, comprising the steps of:

placing a substrate having a top in a chamber;

generating an excitation beam within the chamber whereby a direction of the excitation beam is substantially perpendicularly directed toward the top of the substrate;

introducing a reactant gas that flows into the excitation beam thereby generating a plasma;

introducing an inert gas into the excitation beam and the reactant gas thereby generating ultraviolet light;

flowing an ionic gas into the chamber across the top of the substrate, whereby the plasma interacts with the ionic gas; and

flowing a group III gas into the chamber across the top of the substrate, whereby the plasma interacts with the group III gas, and whereby the interaction of the plasma with the ionic gas and the group III gas causes a growth of a group III nitride layer on the substrate.

6. The method of claim 5, wherein the reactant gas is ammonia.

7. The method of claim 5, wherein the inert gas is xenon.

8. The method of claim 5, wherein the ionic gas is a mixture of ammonia and nitrogen.

9. The method of claim 5, wherein the group III gas is gallium.

10. The method of claim 5, wherein the group III gas is a combination of gallium and indium.

11. A semiconductor device, manufactured by the steps of:

placing a substrate having a top in a chamber;

generating an excitation beam within the chamber whereby a direction of the excitation beam is substantially perpendicularly directed toward the top of the substrate;

introducing a reactant gas that flows into the excitation beam thereby generating a plasma;

introducing an inert gas into the excitation beam and the reactant gas thereby generating ultraviolet light;

flowing an ionic gas into the chamber across the top of the substrate, whereby the plasma interacts with the ionic gas; and

flowing a group III gas into the chamber across the top of the substrate, whereby the plasma interacts with the group III gas, and whereby the interaction of the plasma with the ionic gas and the group III gas causes a growth of a group III nitride layer on the substrate.

12. The semiconductor device of claim 11, wherein the reactant gas is ammonia.

13. The semiconductor device of claim 11, wherein the inert gas is xenon.

14. The semiconductor device of claim 11, wherein the ionic gas is a mixture of ammonia and nitrogen.

15. The semiconductor device of claim 11, wherein the group III gas is gallium.

16. The semiconductor device of claim 11, wherein the group III gas is a combination of gallium and indium.

17. A method of disassociating a molecule, comprising the step of exposing the molecule to a photon emission.

18. The method of claim 17, wherein the molecule is ammonia.

19. The method of claim 17, wherein the photon emission is at an ultraviolet wavelength.

20. The method of claim 17, wherein the photon emission is from a xenon gas.